

## BETWEEN HUMANS

**Abstract:** The coexistence of humans with new forms of intelligences, which may soon be called ‘new form of life’, urges the question about the specificity of being human. What makes a human, human? What are the fundamental characteristics defining humankind? In this future that we already experience, are machines helping or threatening humanity? Reflecting on the course of progress of science in area such as eugenics, a doubt insinuates itself whether the scientific/technological improvement would be a benefit for humanity or a risk; it may be conducive to lose part of the complexity that is a trait of ours as human being, aiming at being more functional, to ‘fit’ better within the future. Considering the soul as the feature that establishes the difference between a human and a machine, in a dialogue between Aristotle’s design and the narration that philosophers and writers have elaborated about it, we draw a portrait of humanity as a mosaic of biology, sensitivity, intellect and more, sense of existence and doubt of being, passions, sufferance and call for freedom; this ‘complexity’ that builds the human may need to be preserved and could already be partially missed.

**Keywords:** Complexity, Eugenics, Human–being, Machine, Soul.

### 1. The Endangered Humanity

It appears that the present age points towards a dehumanisation of humankind, associated to a process of humanisation of machines — by machine I mean

Cyborg, Robot, Artificial Intelligent and what is opposite to human according to our actual common sense of the concept of humanity.

We may consider how, through technology, we face a sort of ‘new Creation’, where a Pantheon of scientists ‘play God’, God as Supreme Architect has vanished, humans constantly move past the limits of their capabilities of being and knowing. According to the Christian Creation, the time for the creatures to rebel against their creator always comes and it is worrisome. In the Bible, the rebellion is entailed by the fact that the creature is made by the image and likeness of God; thereby the creature holds the power to confront the Creator and her free-will founds the possibility of disobedience. From the other perspective of the Evolutionary Theory, we would assume that machines may represent the next passage of evolution of the human chain, thereby forecasting the extinction of the actual human species. It could presumably happen as consequence of the genetic engineering trend, where humans would be forged as more identical-perfect beings, while that very technological progress would be applied to engineer increasingly human-like machines, diversifying the ‘new species’ and thereby making machines stronger than us. As a matter of fact, Darwin pictured diversity as the key for success of species, the effective strategy to survive and evolve through the eras.

Combining the two scenarios, the perfection pursued by the technological progress turns into a simplification of the complexity of life as it is; the dismissal of the plurality of facets in our time certainly applies to human life, considered for the individual, the species and the society. This weaker kind of humans would share the space with a new and stronger living being who formerly created to serve, will eventually rebel. According to this vision, the progress that was supposed to benefit humankind may instead turn against it.

By comparing humans and machines, we may be able to draw a decent portrait of the complexity of life and therefore envision the danger of the pauperisation that science and technology<sup>(1)</sup> are likely to inflict upon it, even if framed as improvement.

What would make a human, human? What attributes and behaviours would substantiate the essence, making a human being differ from a machine? What is this sense of being-alive that a machine still lacks of and which probably still allows humankind to control rather than being subject to them?

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(1). Throughout the present paper, by science, technology and scientific progress — and the related doubts — are not to be intended as a general concepts but specifically as absolute and indisputable advantages for humankind, in any of their manifestations. What is questioned here is not scientific progress per se, rather the rightness of any undisputed power, lacking any contrasting debate and dialogue with the human needs.

Who is the human that science aims at perfecting and machines threaten to replace?

## 2. The Matter Human Are Made of

The representation of robots that Karel Čapek depicted in his play *R.U.R.*, can help constructing this identikit of a human as opposed to a machine<sup>(2)</sup>.

In the play, as compared to humans, robots are described as ‘simplified’. While a man is pictured as “something that feels happy, play the piano, likes going for a walk, and in fact, want to do a whole lot of things that are really unnecessary” (Čapek 1923: 5), robots are those who, even in possession of an enormous over-developed intelligence, have not any interest in life. Purposely made to be the most efficient workers, they don’t pursue happiness, they don’t feel pain, they have no passion and no will of their own. In one world, they have no soul. The feature making humans to differ from machines is, based on Čapek’s vision, embodied in the peculiarity of the soul. In fact, once the robots turn out having the soul, they evolve into an advanced state of life; before being able to do only what humans have shown and ordered them to, the soul-equipped robot refuses to be subject to any master and feels entitled to revolt in the pursuit of freedom.

Should we consider correct the hypothesis of the soul as essence of being human, encompassing her is entire complexity, we would focus on a closer view and question what the soul is in details. When Helena asks to Dr. Gall<sup>(3)</sup> to equip robots with a soul, in order to make them more human-alike, the doctor responds that he could only change a physiological correlate (Čapek 1923: 42).

Yet, Aristotle taught that what is named the soul is more than that; besides being a physiological aspect correlating the organism, the soul is her very essence, what propels life into it. According to the Greek philosopher’s

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(2). In the Čapek’s play, a group of scientists develop a project of new civilisation in which machines replace humans. The robots they built (this is the contest where the word robot was introduced for the first time) differently from humans, are perfectly functional, having a strict work discipline and are deprived of the emotional aspect typical for peoples that interfere with productivity. The design was thrown up when an idealist woman breaks into the laboratory and strongly affected from the inhumanity of the project, ends up to convince one of the scientist to modify the robots and make them more human, giving them a soul; consequently to that, they acquired the awareness of their condition.

(3). In Čapek novel *R.U.R.*, Helena Glory is the woman who introduces herself in the Rossum’s Universal Robots and ends up questioning the project of making robots which replace manpower and treating them as object with no rights and sentiment. Dr. Gall is the head of the project.

definition of the soul, a body is not alive in itself; it is just in the power of being, it is from the soul that it receives life as the act of being alive. *Per se*, an organism, an inanimate substance, matter without a specific form receives this latter from the soul, which in turn ended up being effectively “the essence of a particular body” (Aristotle 2001: 15). While the soul organises and ultimately animates the matter, because of her, the body perfects and equips itself of the necessary organs for being alive. As a principle of organization of a body, as pointed out from an introduction of *On the Soul*, “Aristotle’s soul can be envisioned as something similar to the genetic code” (Aristotle 2001: 15).

But additionally, this very conception of the soul allows one to sense the complexity of the human life structure, deploying herself over diverse levels of sophistication. The Aristotle’ soul is, in fact, the cause of all vital properties of an organism, not just the biological ones; with her faculties of perception and ultimately the consciousness, she entails the life itself in all its facets. Primarily, being the distinctive trait of the animated—being versus the inanimate ones; thereupon, life happens on many different levels, as long as an organism holds one of those features, the sense of nutrition, growing and perishing, the sensation and the intellect; the faculties of the soul correspond to these different levels of life. The nutritive one enables the first level of life; in order to be alive an organism must be capable of nutriment, of growing and perishing. The most natural function of a living being is thereupon the reproduction; that no one, who were not generated, may generate.

The second level of complexity of life is made possible by the sensitive faculty of the soul; through the tool of sensation, the organism is touched by the external stimulus building her knowledge of the world in accordance to it and, consequently, modifies herself; in order to be capable of experience through the senses, a body requires of being made of flesh and blood.

Finally, the most sophisticated level of life is reached by the faculty of intellect, which, unlike the previous two equipping all living beings, is only reserved to humans; henceforth the capability of sensing and thinking the own self within one world, establishes the human consciousness of existence.

### **3. First Level of Complexity of Life — Inanimate versus Animated**

So, in relation to the taxonomy established in the Aristotelian theory of the soul, machines appear different to humans, standing out to be inanimate and thereby ‘not alive’.

Rachael is an android; more sophisticated than a robot, she carries a human body. In the novel *Blade Runner*, she is one of the android that were previously built as slaves, eventually rebelled, escaping from the work colony and landed back on Earth. A special police force, the Blade Runner, is established to uncover the look-alike human androids and eliminate them. Here, in a lively discussion with Deckard, her hunter, with regard to having sex together, she reveals her un-humanity, “Androids can’t bear children. [...] How does it feel to have a child? How does it feel to be born, for that matter? We’re not born; we don’t grow up. [...] I’m not alive!” (Dick 2017: 182).

Assuming Aristotle depiction of the soul, Rachel words define the limitation of androids that seem not having any, not even satisfying the first level of existence, as, despite the fact of having a human body, they are not subject to nutrition, they weren’t not given birth, therefore they can’t generate, they don’t grow and perish like humans would, endowed of soul and thereby of life. Rachael and androids like her can be thought as the consequential outcome of a future civilization, designed according to scientific and technological undisputed value, which appears rather probable in terms of our possible future. Within the framework of such a society, more efficient although simplified, is relevant that giving birth, is not only unfeasible for machines but also turns into an almost disappearing practice for human-women; in fact, in the whole story featuring Rachael as protagonist, the only being experiencing pregnancy would be a horse, because of the highest quality fertilizing plasma available on the market.

#### **4. Second Level of Complexity of Life — The Living Being Sensitive Soul**

Further speculating about the traits of humanity, along the lines of Dick’s dystopia, a specific test that hunters rely upon to uncover androids hiding among humans, a test that assumes sensory faculties as building principle for knowledge of the world, shows the second level of life complexity, as drawn by Aristotle. The test connects two dimensions, the biological and the sensitive, as it detects muscular reactions — specifically the eyes one — to “morally shocking stimulus” (Dick 2017: 82). When Rachael asks Deckard if these particular reactions can be found in androids, he responds that, “the androids are not engendered by the stimuli-question. Although biologically they exist. Potentially” (Dick 2017: 44).

As a distinction mark to separate humans from androids, hunters seek for a social, emotional, moral reaction and, as we know from Aristotle, these features

belong to the sensitive faculty of the soul, as the ability to feel the world and consequently construct through it the sense of the self. A true image of the very same sensitive soul, building the self through the emotions, is pictured in Rousseau's *The Reveries of the Solitary Walker*. Surrounded by a beautiful nature, distanced from the false construction of the civilization, Rousseau allows his soul to talk, liberated of any inhibition, seeking for the essence of himself. The image of the philosopher laying down in a boat effectively captures his soul, as he "would let himself float and drift slowly wherever the water took him, plunged in a thousand vague but delightful reveries, which, although they did not have any clear subject, he found a hundred times preferable to all the sweetest thing he had enjoyed in what are known as pleasure of life" (Rousseau 2011: 52). We receive from this suggestion the human sensitive soul as made out of dreams, pleasure, memoirs, passions, over a flow impossible to fix and capture. Life is always becoming, the human is thrown in the world as an infant geared to become aware of everything; thereupon he grows looking for the place he belongs to, determining the end of his existence and during the old age, he would "try to figure out how to die" (Rousseau 2011: 54). Rousseau names this the 'sentiment of existence', as depicted by this floating moment "where pleasure and sufferance alternate in a length, not in a calculable time [...] as the soul is inflated of joy and misery" and together "sufferance come with the touch of a tender feeling whereas period of prosperity would simply elapse" (*ibid.*).

This 'flowing of the existence' is, in his conflicting fullness, indeed distant from the perfect functionality of the robots, in Čapek play.

Such passions though, particularly sufferance, tools for the construction of the self that unfolds in the human soul, would completely be eliminated in the science plans, as well as in those of civilizations as pictured in future dystopias. In Huxley's *Brave New World*, for instance, people aim at avoiding feelings, by taking a drug, the 'soma', which deletes from the soul in general the capacity to feel, and specifically, to suffer pain, effectively erasing any sign of life. In *Blade Runner*, a special box containing all human feelings empowers humans to programme themselves with the more suitable mood for their daily schedule, geared up by the specific intent to control emotionality and avoid state of depression or other layers of sadness. The elimination of any sufferance is a reasonable goal for the new species coming after humans, which however find their roots back in time, as we think for instance of Epicureanism<sup>(4)</sup>.

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(4). The argument of the emotion control or the cancellation of sufferance in 'the new species after humans', it obviously recalls the Transhumanism and post-human debate in the vision of a possible

Beyond this sentiment of existence as a flow of passions, “cross and delight”<sup>(5)</sup>, the human soul has another important component at this second level of development, as Aristotle already underlined; it is the willing, the faculty that makes human capable of being free rather than mastered, like machines. Considering the Biblical Creation, consequence of their will was the Adam and Eve’s fall and before, it was for God’s will that everything was create so that, rather than being an element of life, the free–will has been, in effect, the cause of it. Once again, if we moved from the sacred to the mundane, assuming Darwin’s theory of species an attempt to organise and ordering the whole creation, the expression of free–will seems escaping the law of natural selection. Outlining the process of selection by which species evolve to become new ones or, conversely, to disappear and extinct themselves, Darwin clarified that the most diversified the offspring, the more the species avoid extinction and evolve in a new modified and stronger trait. Countering the rule, though, in the diagram of the natural selection, the case of a species called F14 stands out<sup>(6)</sup>; despite the fact of not having undergone any modification in million years, it didn’t extinct; on the contrary, it ended up surviving several generations like other species which were severely modified along eras (Darwin 1979: 332). It may be a wrong interpretation of the natural laws, however, defining free–will as the act that, given one choice to be taken, the equal possibility of the opposite being assured, even against logic or convenience, the odd case of F14 appears being a manifestation of free–will nestled in the inflexible Darwinian theory of natural selection.

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future of humanity. However, in this work, on purpose, I’m not considering that area of thoughts, with the exception made for some literary reference used, such as C. Darwin, *The evolution of the species* or A. Huxley, *Brave New World*. In fact, the purpose of the paper is to focus on what the human in her essence and how her complexity can be threaten from or conversely preserved in spite of the cohabitation with new forms of life born from the progress of the technique. The reference to Epicureanism is specifically at their philosophical end to avoid sufferance by the decision of dealing a calculate amount of emotions — and pleasure — possible to deal with, without emotional cost.

(5). My translation of “croce e delizia”, from the Italian Opera *La traviata* by Giuseppe Verdi, libretto by Francesco Maria Piave.

(6). The diagram I’m here referring to is *The Tree of Life or Evolutionary Tree* sketch, apparently the only illustration in the *Origin of the species*. Here I’m considering that dated 1859, an elaboration of the one Darwin drawn in 1839. It is situated in *The Origin of the Species*, Chapter IV, “Character of Natural Selection”, in the sub–section “Divergence of the Character”. Indeed, this can be considered the pivotal chapter of Darwin’s work, in which he shows the theory of natural selection, how nature operate to change species facilitating variations that make specimen stronger for surviving and evolving or, otherwise, to go extinct. The diagram shows how the more variations appear into one single species, the more possibilities that one has to survive by evolving into a stronger variation of the first. To see the diagram and a summary of the chapter, please go to [https://www.age-of-the-sage.org/evolution/charles\\_darwin/tree-of-life-origin\\_of\\_species-1859.html](https://www.age-of-the-sage.org/evolution/charles_darwin/tree-of-life-origin_of_species-1859.html).



Besides the Bible and Darwin, another history of creation includes the element of the soul as free-will as features of humans. I think about Lucretius, when, in the portrait of life elaborated in *The Nature of Things*, introduces the peculiarity of the *clinamen* in the theory of creation based upon the atomic principle; in a scenario where the natural law defines the straight falling down of atoms, Lucretius inserts this spontaneous deviation from the normal trajectory, causing atoms to randomly bounce and join one another, creating matter rather than falling vertically and vanishing in a vacuum.

The presence in another creation tale of a form of free-will reinforces the idea that for human existence, this aspect of the soul, the equal possibility to embrace one's own destiny or conversely to rebel against it, appears to be essential. In order to prove oneself to be alive, it seems to be mandatory "To confirm oneself that men are still men, and not piano key, which may be played by the hands of natural laws themselves, but which are threatened by this very playing to be brought to a state where it will no longer be possible to wish a thing outside of graphs and schedules" (Dostoevsky 1981: 34). In Dostoevsky's *Note from Underground*, the speaking soul fights to exist with all his will; standing before a society demanding the personality to be shut down, the character reclaims the right to his individuality, from the corner of the world where he has been relegated. Every man and every woman must be given birth as unique and their existences would be as true as much as they would figure their particular essence and express it by living according to it. The human free-will takes the direction of this expression and therefore of the existence of the self itself, where the former cannot be without the latter.

Whereas humans struggle to attain their identities by continuously exercising their will, reinforcing their identity in the process, the machine-android being may fight for having both. In another *Blade Runner* scene, where the hunter Deckard closes in onto the android Rachael, she tries to explain why she would be different from another android, the rebel Pris, whom Deckard searches for to be retired. She investigates what she would possess that the other android lacks. Deckard responds *empathy*, as the machine suffers for the lack of it. "Something like that" she answers, "Identification; there goes I".

Then, she realizes, "My god; maybe that's what will happen. In the confusion you will retire me, no her. And she can go back to Seattle and live my life. I never felt this way before. We are machines, stamped out like bottle cap. It's an illusion that I — I personally — really exist; I'm just representative of a type" (Dick 2017: 178). Diving into the sentiment of 'not to be', she almost immediately surrenders to the idea that Deckard, with whom she lied



down in love, is about to kill her, because of a task to be completed, and says, “Will you kill me in a way that won’t hurt? I mean, do it carefully, if I don’t fight; okay? I promise not to fight. Do you agree?” (Dick 2017: 188). At that point, Deckard states, “I can’t stand the way you Androids give up.” There is a truth about machines which is already revealed in the *Imitation Game*, the test which Turing writes about, designed with the purpose to distinguish man from machine, the same that acts as model for Dick’s novel test. It is based upon the ability to answer questions requiring the capability of thinking, as humans would. As a matter of fact, machines may pretend to be human relying on their high intelligence and thereby cheating about their identity. Although, their disguise depends upon having been previously programmed from someone else, rather than on their own will. Programming a machine calls upon inserting the appropriate instructions to complete operation A, so that the machine will do A, the potential and related freedom being limited by the programmer. Therefore, were identity to depend on free-will, machines appear unable to equip themselves with any. Furthermore, not cheating about their identity is what humans want the most. We fight through our whole life aiming at not being ‘just representative of a type’. Rather, a human being seeks being “only his own independent wishing, whatever that independence may cost and wherever it may lead. And the devil knows what his wishing...”, as Dostoevsky captures as fundamental essence of a human soul (Dostoevsky 1981: 29).

If we were to leave behind androids and robots of the novelistic sci-fi scenario of Dick’s and Čapek’s, and leap forward into the real future life that technology and science, particularly genetic engineering are designing, we may disclose the threat for humanity that may reside in it.

In general, science substantiates the problem of combining the complexity of humanity, that I’m describing as unattainable, in its totality by knowledge, with the human hubris, the ‘desire to play God’, pushing forward beyond its limits, pursuing the attempt of capturing the secrets of the life. As opposed to this, we can reasonably think that the vastness of the human soul — as I seek to disclose here — sustained by her feelings, passions and free-will, will always generate a non-mathematically predictable choice, no matter the vastness of the situation a machine has been programmed for, as it is argued above in relation to the Universes created by writers and to Turing’s considerations. This vision, which certainly carries issues about the conservation of ‘the humanity of humanity’, could become a forthcoming reality. It may become as it is shown in the shocking vision of our future drew by eugenics and

illustrated in Metzl's *Hacking Darwin*<sup>(7)</sup>; should we grant science the role of new ruler, governor, master and shaper of humanity, nothing would be impossible anymore, neither ultimately creating life from nothing; it is just a matter of time.

Should we assume the unattainable complexity of life to be the one's limit to the secret of life, the very complexity Aristotle would engender in the soul, we would have to recognize that this limit is presently overridden by genetic engineering. In fact, Meltz reports how humans are no longer "infinitely complex being but rather massively complex one" (Meltz 2019: 118).

Today science<sup>(8)</sup> has transformed an uncountable quantity of variables — the marvel and the mystery of the genetic code — in a measurable one. With progress unraveling more powerful tools, "the comprehensive reference maps of all human cell will be stored and available all at once"<sup>(9)</sup> (Meltz 2019: 119) and the "magnitude of the body complexity" (Meltz 2019: 118) will be disclosed and made available. The realm of 'the possible' is supposed to grow unlimited in its association with knowledge; from the possibility to grow human parts to be transplanted out of animal bodies, to creating genetically new human traits and to the capability of writing a new genetic code, that nature had never imagined. Everything is to be programmable, for a life at its higher potential. We can hardly speculate over the potentially disruptive consequences of this path.

Likely, philosophy would need to create new concepts to study such new systemic realities that already inform not only the upcoming future, yet our very present.

How would we situate, for instance the free-will, in this mathematic scenario, as the essential tool defining the status of being human; "Gentlemen, what kind of independent will can there be when it comes down to graphs and to arithmetic, when nothing counts but 'two times two makes four'? Two times two will be four even without my will. Is that what you call man's free will?" (Dostoevsky 1981: 36). One possible conflict stands before us, as we

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(7). Meltz's shows a possible future of humanity, from the prospective of the progress of Eugenics, considering the fact this is already operating, especially in health treatments for degenerative diseases and in the IVF method of conception. The author, perhaps also as athlete, fascinated from the possibility for the human body to be more functional, is very keen and supportive to genetic engineering development, so much to sound provocative in his advocacy for this, as he calls it without any doubts, 'human progress'.

(8). For the right meaning of 'science' in this contest, please see note 1, page 182.

(9). The Human Cell Atlas is a reality; it is a coordination platform that integrates data of human biology from all around the world and which will grow to be able to provide the map of cells of the entire humanity (Meltz 2019: 119).

realize the potential irresolvable internal contradiction or logical disjunction of the conservation of human traits in relation to the progress of modern science. It is perfectly summarized by the above Dostoevsky's quote "Two times two will be four even without my will", which we could interpret as no matter what, ultimately, science will pursue its end despite human needs or will.

The probable dilemma associated to the ongoing running scientific progress becomes more intricate, when we think that progress is presented and illustrated, mostly unquestionably and in all its manifestations, as anything but the final *greater good* of humanity. Otherwise put, for instance, genetic engineering prospects humanity a future of health, longevity and open previously unthinkable chances. Assuming the perspective of sheltering humanity from sufferance, by contrasting degenerating diseases, or even better, by preemptively saving our future children from viruses and physical decaying, everybody would agree in conscience that progress benefits humanity<sup>(10)</sup>. Moreover, other than prevent from pain along the course of one's life, genetic engineering can build a less uncertain future, by directly purposely selecting the embryos featuring the best possibilities of life. Relying on highest IQ, knowing in advance the personality traits, parents would direct their children towards the path which best suits them, avoiding waste of time in the research of better solutions and, more importantly, defusing once and for all the risk of failure, implicated in choosing the wrong direction (Meltz 2019: 55).

At first glance the benefit such 'absolute' science prospect, paves the road to the improvement of humanity. On the other hand, the risk that we may be forced to 'sell our soul' in exchange of all these benefits is tangible. We may doubt that science proceeds aiming at the betterment of human condition; truth being told, scientific research appears being drive, in some of her manifestation as those considered here, by the desire to continuously overcome its limits, rather than by a specific predetermine end; it is likely to respond to the hubris urgency "but why stop here?" (Meltz 2019: 124) rather than questioning whether humans would benefit from the achieved result.

Outlining what is precious to preserve in order to maintain humanity, we may consider useful examining the benefits science appears putting forward. We may start by reflecting upon Deckard's words, reciting "A humanoid robot is like any other machine; it can fluctuate between being a benefit and a hazard very rapidly. As a benefit it's not our problem" (Dick 2017: 37). It

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(10). Those issues again refer to the Transhuman and post-human debate that here, as I specified up above, I have decided not to include, for the clarity of my argumentation.

seems reasonable assuming the lines as a warning with respect to the danger implied in any notion of uncontrollable power, like prospected by eugenics, for instance. We may additionally reinforce the instance by Dostoevsky's words, even though those question the convenience of the benefit itself, as far as revolving it into its opposite, which is to say into a hazard. Assuming that science always represents an advantage for humanity, we may consider the fact that, most of the time humans wouldn't know how to benefit the alleged advantage, "Who has ever, in all these millennia, seen men acting solely for the sake of advantage? What's to be done with the millions of facts that attest to their knowingly — that is, with full awareness of their true interest — dismissing their interest as secondary and rushing off in another direction, at risk, at hazard, without anything or anyone compelling them to do so, but as solely in order to reject the designated road, and stubbornly, wilfully carving out another — a difficult, absurd one — seeking it out virtually in the dark?" (Dostoevsky 1981: 22). The instinct for rebellion, which drives us to divert from an established path as expression of our free-will, assumed as the very essence of our humanity, would doubt the absolute benefit of absolute advantages.

Furthermore, "What is advantage? Who can define with absolute precision where exactly man's advantage lies?" (*ibid.*). It may argue that the system of benefits, as created by those who Dostoevsky names "the friend of human species for the happiness of the human species," (Dostoevsky 1981: 56) which appears to define pure supporter of 'absolute scientific progress', simply counters human nature. "Who can be sure that human will spontaneously decide to stop to make the wrong choice and, once he will have the direction for the right, he will stop from exercise his will by going if he liked toward his own interests?" (*ibid.*).

Moreover, Dostoevsky continues to insinuate "Once all human difficulties will disappear, because we can calculate in advances all our life, for the inhabitants of the Earth will remain nothing to do [...] life will become dreadfully boring — for what's the point of doing anything if all is set and classified?" At that point, humans — who are, according to Dostoevsky, stupid and ungrateful creatures — will say "My dear sirs, we should smash all this good sense to smithereens with one hard kick, to the sole end of sending all these logarithms to the devil [...] that man, whoever he might be as always and everywhere preferred to act according to his own wishes rather than according to the dictates of reason and advantages" (Dostoevsky 1981: 28). So is the human soul, who welcomes as only advantage "one's

own free, untrammelled desires, one's own whim, one's own fancy, that most advantageous of advantages" (*ibid.*). "And no matter what made people think that men should have normal, virtuous desire, or necessarily wish for the advantageous"; the will itself is the proof to be alive and for that "they can wish also the most stupid things just not to have the obligation to do only what is reasonable". The greatest good for humans is to preserve their free-will, even if it were to cause damage, even to wrong themselves, if they were to wish so, "because, at any rate it preserves for us the most important and the most precious thing — our personality, our individuality" (Dostoevsky 1981: 32).

This whole matter of the soul is finally the matter of life, which level upon level establishes everyone's specific human identity. Already at the sensibility level, the pieces composing human life recall the ones of a puzzle too difficult to complete.

As a matter of fact, eugenics may counter such a boundary and seems being close to unveils and captures almost all secrets of creation. Amongst its applications, certain practices on the embryo in the IVF process unleash the most profound doubts. Meltz unravels the practice of genetics editing and reveals that a future human being can be selected and chosen at his embryonic state, in all his complexity. Established as a practice aimed at investigating the health of the embryo, prenatal screenings would offer to a future mother a spectrum of specific physical characteristics to choose amongst, for instance height, IQ, and ultimately an explicit personality. But, "a person personality comes from so many different sources; how can you reduce all of that to genetics?" (to maths, graphs and calculation, Dostoevsky would add). The doctor responds to this mother in the IVF process that even if personality style had many foundations, genetics would probably be the biggest. "You are telling me I can select which one of these little embryos in your freezer is going to be the next Mother Theresa?" urges the mother. The doctor softly replies "It is what we are beginning to understand; the genetic patterns underlying different personality style, and people can have the information before selecting it. We can indicate with statistical probabilities the one that has the highest statistical likelihood relative to the one whichever personality you choose" (Meltz 2019: 53).

Still fighting "to hold on to the magical unknown of being human"<sup>(11)</sup> (*ibid.*), like that mother in the IVF process, we retrieve the different strata

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(11). Those are again the words of the mother's thoughts in the IFV process, during the interview with the doctor.

concurring to construct a human being to verify whether, in the name of progress geared at improving life, we simultaneously concur to trigger the risk to dismember it.

### 5. Third Level of Complexity of Life — †The Human Soul as a Flux and the Self Consciousness

Using the Aristotelian path in his *On the Soul*, we are disclosing the complexity of the humanity through her soul articulation; how her intricate and overflowing composition grows, from the nutritive level, feeding itself; thereupon reaching the sensitive level, undergoing changes affected by the knowledge of the world, distilled from the sensory faculty; then, the human soul enriches herself through the struggle of of the sufferance, the feeling, the passion, exercising the free-will. Ultimately, she attains the summit of maturation at the intellectual level, in which the self will finally have self-consciousness. Prior to that, we may want to consider a further layer of complexity. Such a level, which links the sensitivity and the intellect, is described by Henri Bergson in his theory of consciousness, which asserts that the perceived reality within a human body differs from the one unfolding outside. Whereas external life is governed by the law of nature and by the numbers of statistical probabilities, within a human body, within her inner soul, life flows incalculable and elusive, like the trajectory of a boat, “left afloat and drift slowly wherever the water took it” (Rousseau 2011: 52).

Rousseau had first guessed this peculiar dimension of inner life, which resembles again that powerful image of him carried away by the water. Particularly, when along this floating movement he describes the happiness of his heart that, “longs for it, not made up of short-lived moment, but of a simple and *lasting* state, which has nothing intense about it in itself, but which is all the more charming because it *lasts*,” and thereupon, he adds “Everything on earth is in a state of constant flux” (Rousseau 2011: 55).

This thought of life as ‘lasting perennial flux’ is just the peculiar dimension of the soul that Bergson adds to Aristotle’s classification. Indeed, countering Rousseau, life as flux and duration is the specific condition of the human being; this would found, compared to the rest of the living beings, the uniqueness and sophistication of humankind. Such a sophistication already starts at the level of sensation. Even though Aristotle doesn’t state any specific difference within the sensitive faculty of the soul, Bergson assumes the human

sensibility being different from others, for instance from the one that animal or automaton (modern robots, basically) may have.

Rather than being the result of just an automatism or, in the case of animals, of an instinctive reaction to external stimulus, human sensibility is, in fact, affective and conscious. It implies that when a stimulus reaches the human sensitive faculty, our reaction, other than being automatic or instinctive, would rather be selected out an act of conscience and the ensuing choice is to be based on an affective motivation — i.e. remembrance of pain or joy by the subject. By resisting to the impulse of the first instinctive reaction, the conscience elaborates the stimulus, connects it with an affective cognition and builds a response which is an act of free-will. So, according to Bergson's vision, as a conscious act the human sensibility is the trigger of human free-will. This is possible because within the body all data are connected in the specific time of the *duration*. Through Bergson's distinction of these two multiplicities residing within two different kinds of time, human complexity acquires a new level of sophistication. Opposite to the external world, where in the quantitative, linear time, all phenomena are perceived as distinct, within the body, the human soul is immersed in this peculiar qualitative time that fills herself with purely affective and un-measurable data; in it, all the sensations, the feelings, the ideas are connected, every moment collected, lasts and concurs at the continuative progress of the soul. Hence, the self bonds all the occurrences, from the entire life timeframe of her own person, by being sensitive and intellective at once; moreover, consciously chooses a voluntary response and within the operational framework of these two processes, such as perceiving time as qualitative duration while exercising free-will through selecting between opposing options, the self grows. At a closer consideration, not much of such an 'operation' making the human can be calculated and reproduced with statistical probabilities.

In the present reconstruction of the human multiplicity, Bergson's theory of duration completes the second level of the Aristotle's design, leading to the ultimate sophistication of life, the intellective one. Even if the sensation mechanism already appeared complex and encompassing the majority of the features that we reconnect with a human being, something remains missing.

As Rousseau said, in fact, "the sensation is always right, although it isn't aware of it" (Rousseau 2011: 23). The awareness is what we miss, the element leading the soul to the successive level: the thinking. Through the use of the intellective faculty, the self acquires consciousness, at first on the external reality and ultimately on oneself; being capable of thinking one-self uplifts the self's identity at her fullness.



How would a self, a soul, acquire consciousness, in details? Indeed, as a first step, she exercises the ability of thinking the reality in general. In the Bergson's vision of consciousness, the external unrelated facts existing as singular units are encompassed in a systemic perception by the thinking subject, who transforms such a multitude into a unity acting as a unique progress. As a matter of fact, because the self creates that thinking, within that only consciousness "diverse solos notes existing as potential can be connected and become a single melody" (Bergson 2002: 107).

But just thinking the reality wouldn't complete the process. As Dostoevsky reveals in his *Notes*, taking the world as it is, be aware of it wouldn't suffice, were the human to feel of being alive and human; a person needs to be granted the possibility to doubt the reality in order to exist. The thought seconds Descartes, who, in his research of truth about the human soul and reality, theorised doubting as the unique sign of existence, the only 'clear and distinct' idea that composes the truth of reality. The fact that the unique proof of one's existence is her own thinking, remains true even in the eventuality in which her own body were not to exist, and relates to our reasoning about 'being human'. If Descartes were to theorise Dostoevsky's intuition of the paramount importance of the doubt in the construction of the human identity, Rick Deckard ultimately embodies Descartes's theory. Similarity of the names aside — René Descartes vs Rick Deckard —, the Blade Runner hunter embodies the concept of existence according to the French philosopher by doubting himself, his existence, identity and the entire reality along the whole span of the story; indeed, his thinking and doubting remains the only proof he can ultimately generate, the only feeling he can infer of his existence. To a certain point, it is also the only fact saving him from being unmasked as a machine. In fact, in Dick's narrative, androids are incapable of thinking, they just take actions; "Don't think about it, just do it" Rachel urges Deckard, "Don't pause and be philosophical" (Dick 2017: 182).

Yet, even after the self has attained the consciousness of herself through her own thinking, the development of her identity misses the complete expression.

Aristotle had guessed it, although he hadn't theorised it. We have above-reported his thinking; the soul, essence of life, is the cause of the form, the mutation and the final end of the living being who has by itself the life only as potential. Through her three faculties, the soul empowers the living being of its whole identity. Clarifying in this way the bond between the body and the soul, Aristotle suggests the importance of the otherness in order to achieve the processing of identity. For the complete realisation of herself, in fact, the living being depends upon others than herself.

As a matter of fact, even the simplest amongst the vegetables, realizes itself in relation to what it receives from another, starting the basic feature of nutrition. Having been banished from society, Rousseau questions himself, “What about me, cut off from them and from everything else, what am I? [...] How can I trust illusions that have the only myself as spectator” (Rousseau 2011: 3), he continues. From some other place we hear “What was I?”, yells the Frankenstein’s creature; “I heard how the father doted on the smiles of the infant; how all the life the cares of the mother were wrapped up in the precious charge; of the brother, sister, and all the various relationships which bind one human being to another in mutual bonds. But where were my friends and relations? No father had watched my infant days, no mother had blessed me with smiles and caresses” (Shelley 1994: 149); “I’m alone, miserable alone [...] I was benevolent and good; misery made me a fiend.”(Shelley 1994: 128). The creature, whom grew up in solitude wouldn’t develop its own soul and identity; for instance, not having any experience of the good would ultimately lead to pursuing the bad<sup>(12)</sup>.

The Italian philosopher Remo Bodei reiterates the concept by saying that the dichotomy between the self and the other is paramount to humans, for a person is not capable of knowing herself without the comparison with the others. Ourselves and our consciences are ultimately the result of social interaction; with the otherness of the mother at the beginning and thereupon the one of the social structures. Again, the very same idea is reaffirmed by Freud, as he says, that “the adult’s ego–feeling cannot have been the same from the beginning. It must have gone through a process of development” (Freud 1989: 14). According to him, the infant, indeed, is not aware of the difference between herself and the world outside; through the connections with the mother first, which is indeed a physical and sensitive bond and thereupon through the relationship with the rest of society, which is rather intellective, the subject gradually develops the sense of the self.

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(12). One possible lecture of *Frankenstein*, the one adopted here, consider the novel being about family relationship. In fact, Viktor Frankenstein is a father who abandons his creature the minute after he was born — he created him. Considering the psychological impact that solitude has on the developing of one’s Self, I see how, practically, Frankenstein’s creature is nothing but an abandoned child, wandering all his miserable life seeking for somebody who would love and care for him. Receiving instead only rejections, the creature develops into a hatred soul. Platonically, we can say that he committed the evil because he didn’t have any knowledge about the good. Moreover, together with the absence of any dear figures, his mental developing is unnaturally fast — he learns to walk, to talk and to read in a very abnormal short time, for a human — so that he finds himself deprived of the time of the childhood, a fundamental human season for the psychological and whole human development. With respect to technology versus what is natural, he develops unnaturally instantly, as on the opposite, the products of nature grow by degree.

Moreover, we may consider how these human links are in charge, not simply to ultimate the development of the human soul, but also to keep her alive. Factoring in empathic ability, it seems evident how, through the exchange with others, the human being is present to herself; through the ability to care for others, the self preserves the hope that somebody may care for her.

Empathy, where feelings and otherness bond, is so fundamental for the human species that, even in a dystopian society, as the one depicted in *Blade Runner*, where all feelings are nullified in exchange of the system perfect functionality, the faculty of empathy is maintained, even though outside the human body, as the most “precious extension of it, as the most personal possession you have” (Dick 2017: 63). Ultimately, within the social system, empathy is the test detection mechanism which android hunters like Deckard rely upon in order to identify and ‘retire’ their prey, but, because of that very function, remains the key element to distinguish a human from a non-human, being the main feature of the human soul.

Building on these assumptions, the perspective of expelling empathy out of the human body could be seen as one of the simplifications, science and technology enforce upon human life, for the sake of humanity herself. However, in this regard, we may consider that the capability to feel, besides leading to connection and self-awareness, also substantiates herself as a paved road to sufferance. As the humankind has always been strategizing to avoid pain, the promise of a future with less sufferance, put forward by the scientific progress, sounds less inadmissible than it should be. Consequently, losing faculties, such as free will or empathy, would not appear that tragic a price to pay; even because prior to the threats stemming out from the progress, eugenics or robots, humans had already experienced the loss of pieces of their souls.

## 6. The Human Being’s Simplification

Considering the biography of humankind, once we attained a certain grade of complexity of life, we reject our humanity and experience the urge – or the need – to simplify.

It happens after having climbed all the steps of development of the soul that Aristotle conceived as necessary for a living being to become herself, and even upon having gone farther, having ultimately developed our humanity

through the experience of the otherness. The very first simplification occurs as consequence of the encounter which we have above considered paramount for the construction of our identity, the connection between our inner self and the reality of the external world.

Firstly, Bergson's duration is rendered into linear time, as conventionally experienced in the realty outside. The time as lived within our inner self, this full experience of the soul, where each moment and memory are connected in a unique deployment, is transcoded into the linear, arithmetically simplified time, aiming at experiencing life in connection with the tangible world.

Secondly, in order to communicate with this external world, the consciousness is called upon simplifying what she experiences within, because of the difference of the substance of the time experienced within as opposed to what is perceived outside the self. The inner self fixes the perpetual informal becoming of the feeling within into external tangible objects, she essentially names it; thereby, for instance, the unique way, which every humans love, suffer, hope, that within the soul are a multiplicity of diverse interpretations, through language is to be segregated in separate units, carrying a purpose of defined universally valid significance. In order to encounter other human beings, we become the shadow of ourselves, Bergson concludes; but "we pursue the simplification of our essence anyway, because the life outside ourselves, the social life is important for the self" (Bergson 2002: 85–87, 143).

The very social life, requiring the simplification of our soul, eventually demands to change our self in order to better fit in; "You will be required to do wrong no matter where you go," says Wilbur Mercer<sup>(13)</sup> to Deckard, as he seeks for the salvation of his soul. "It is the basic condition of life, to be required to violate your own identity. At some time, every creature which lives must do so. It is the ultimate shadow, the defeat of creation" (Dick 2017: 168). Besides the evidence that the new eugenics elects our personal desire "to be as fit as possible" (Meltz 2019: 177) to driving principle of its research, this social requirement truly denies our true self and impedes her to exist.

Inquisitively, since ancient times, humans decided to live together responding to motivations and beliefs which ultimately resonate in what presently drives the scientific progress; they chose the community under the impulse of their passions, in order to better satisfy their needs and remove suffering. Through the analysis of such a process, we realize that humans had already either lost or renounced to units of their humanity along the history of the species, because of their natural impulse, without any new technology

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(13). He is the police chief of the Special Force Blade Runner.

threat, without being scared of the obscure and incalculable consequences (or costs) of promises. Similar to Frankenstein's creature, turning into 'the monster', "we were good and benevolent, misery made us a fiend" (Shelley 1994: 87).

Rousseau reminds that, among the savages, prior to civilization, pity was a natural feeling, which, by serving to mitigate every man's egoism, concurred to the conservation of the species (Rousseau 2011: 63). As soon as humankind gained confidence, sustained by the desire of achieving huge undertakings and by the constant reasoning over the possibilities of the species, the substance of her soul changed. As soon as humankind began to calculate the benefit, the reason cut the wings to the natural instinct of pity. Thereupon, because of the sophistication of the work, humankind differentiated within herself, in accordance to individuals' natural attitude to specific trades and by programming the work in long terms; "The stronger who worked harder, the smartest who make more profit from his activities, the more ingenious who find the tools to make it done in lower time. Hence, working equally, ones earn a lot when the other struggle to live" (Rousseau 2011: 83–84). The competition, Darwin unveiled in the nature world dimension, was already present in savage's social groups. This uninterrupted thread leads to the new IVF practices, where parents select the best embryo, featuring the best genes because "in a world dominated by competition, parents understandably want to give their kids every advantage" (Meltz 2019: 176).

Because of this natural human tendency to inequality, where the strongest, the smartest, the fastest commands over the weakest, civilisations exercised control over any possible aspects of the human life, and consequently limited the possibility of freedom; and this boundary seems so primary that even utopias couldn't perform otherwise. In fact, the very first Utopia, More's ideal civilisation, substantiated herself as a strict system of rules, in the purpose of equality; everything was fixed and decided upon, from the hours of daily work to the place where everyone would be supposed to sit at the table, and consequently freedom was sacrificed in the name of a greater good. According to Freud, finally, civilisations demanded humans to control their instincts, the very same sensitivity that in Aristotle's theory of life was the second step along the way of self-consciousness.

This last consideration about civilisation effects on human complexity draws this portrait of the human being; so impoverished, with a simplified soul and identity, with a small sense of freedom and compassion, with a sterilized instinct and in perennial competition with peers, humankind has

perhaps little to worry about being subtracted of life by some kind of superior intelligence.

I have been willing to navigate the plurality of aspects of the human soul, convinced to find there the uniqueness of being human; hoping that the awareness of our complexity could prevent our species to be threatened by some sort of techno– post–humanity and that by being conscious of the complexity of *being human*, we wouldn't give up our identity so easily in the name of the high functionality the scientific progress promises us.

Although, we come so far to conclude that, much earlier than machines turned into an issue, the mankind has been already capable to impoverish herself. Though, this doesn't diminish the urgency to seek for a favorable cohabitation of our species with the new technologies. Since nowadays, the focus of the discussion about humanity is not anymore humankind herself, or rather the substance constituting a human and the effort to preserve her while improving her life. The importance of the debate has shifted from the single human subject to the “dialogue” that we as species need either to enhance or even begin with the other inhabitant of the world, such as plants, animals, micro–organisms and machines. One out of the future calls of philosophy will certainly be to facilitate and direct this dialogue. For too long, throughout modernity, this discipline has been relegated within academic discussions. Perhaps, we are unable yet to envision the whole impact that the technological progress is going to have on humankind and on the Earth life; we know that this impact has already started and it is critical. The effort to conserve (in some instances rediscover) what is peculiar to being human, while transforming our species through the scientific progress, is a need. It is a must though that the dialogue between science and humans were to be regulated. Philosophy is called upon to be active, by being crucial to this dialogue. This action may possibly offer the chance to think not only of a future where the coexistence is to be possible, but of the future per se.

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